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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/467,210	12/20/1999	DAE-HEON KWON	678-405	2053

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[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2611

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/467,210	KWON ET AL.	
	Examiner	Art Unit	
	Hai Tran	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-7 is/are pending in the application.

 4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) Claim(s) ____ is/are allowed.

6) Claim(s) 1-7 is/are rejected.

7) Claim(s) ____ is/are objected to.

8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ .
2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ .	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (US 6243596) in view of Tsukamoto et al. (US 5005013) and further in view of Lagoni et al. (US 6141058).

Regarding claim 1, Kikinis discloses a cellular phone in which a TV tuner and receiver is installed in battery pack adapter 100 to allow user to receive and view television (see Fig. 9-12; Col. 17, lines 34-41).

Kikinis does not clearly disclose in detail "a TV module for receiving and demodulating a desired TV channel signal among radio-frequency electromagnetic signals received in response to an input of a tuning signal, when the TV module operates by supply of a power supply voltage, to generate a composite video signal, a composite synchronizing signal and a composite audio signal"; "a TV control section for supplying the tuning signal corresponding to a channel selection command signal to the TV module, synchronizing On Screen Display (OSD) data corresponding to display control data and display data with the composite synchronizing signal to output the synchronized signal as a video signal" and "A

display unit for synchronizing the composite video signal from the TV module and the video signal from the TV control section with the composite synchronizing signal and displaying the synchronized composite video signal and the video signal on an image viewing screen"; However, Bikinis discloses a TV tuner and receiver is installed in battery pack 1 adapter 100 to allow the user to receive and view television (Col. 17, lines 34-41) on a display unit LCD 202.

Tsukamoto shows a hand-held device with a TV module for receiving and demodulating a desired TV channel signal among radio-frequency electromagnetic signals received (antenna 2 receives a TV broadcast radio wave and a radio wave generated from a Radio transmission station of telephone office; Col. 3, lines 36-41) in response to an input of a tuning signal, when the TV module operates by supply of a power supply voltage (Col. 4, lines 4-10), to generate a composite video signal, a composite synchronizing signal and a composite audio signal (Col. 4, lines 10-21) and a TV control section for supplying the tuning signal corresponding to a channel selection command signal to the TV module, synchronizing On Screen Display (Timing Control Circuit 35) data corresponding to display control data and display data with the composite synchronizing signal to output the synchronized signal as a video signal (Fig. 2 & 14; Col. 4, lines 4-64; Col. 10, lines 4-40 and Col. 13, lines 25-62). A display unit 3 (Fig. 2 and 14) for synchronizing the composite video signal from the TV module and the video signal from the TV control section with the composite synchronizing signal and displaying the synchronized composite video signal and the video signal on an image viewing screen (Col. 14, lines 25-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis' s Video driver 402 with the LCD's video circuitry driver, as taught by Tsukamoto, so to take the advantage of the well known design of the LCD video circuitry driver to drive the LCD to display the received video signal.

Moreover, Kikinis 's Cellular phone (MRFU) performs a two-way conversation in which CPU 401 (MSP) continuously processes both incoming and outgoing audio data. The incoming voice signal is received through a forward channel, demodulated and outputted to the audio speaker and the outgoing voice signal (reply back) is modulated from the microphone 203 and transmitted out on the reverse channel. Therefore, Kikinis 's Cellular phone (MRFU) encompasses the claimed limitation "a Mobile Station Radio Frequency Unit (MRFU) for demodulating a signal indicative of an incoming call received through a forward channel, forming an audio conversion channel among the received radio-frequency electromagnetic signals to output the demodulated signal, and modulating and transmitting a signal in a reverse channel"

Kikinis further discloses CPU 401 (A Mobile Station Processor) for establishing a phone mode for conversation or TV mode for displaying the received TV signal from the TV tuner on an image viewing screen (LCD 202) in response to an user selection.

Kikinis does not disclose, "demodulating a signal indicative of an incoming call".

Lagoni discloses a television/telephone system (Fig. 1) wherein the telephone network interface 126 detects and demodulates a signal indicative of an incoming call received through a pair of conductors Tip (T) and Ring (R) (Col. 4, lines 4-7 and lines 14-17); Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis' s cellular phone system to detect the incoming telephone signal and display an alert message, i.e. Calling ID, as taught by Lagoni, so to notify the user of an incoming call while watching the TV and also to give the user a choice to answer or not to answer the incoming call based on the displayed Caller Id while watching a TV program (Col. 1, lines 17-23).

As to limitation "A Mobile Station Processor (MSP) for establishing a phone or TV mode in respond to an Input command, generating the channel selection command signal stored in a predetermined memory area by setting the TV mode, supplying the display control data to the TV control section or interrupting a power supply voltage supplied to the TV module according to a preset incoming call alarm mode when receiving an incoming signal from the MRFU, and processing audio data outputted from the MRFU to output the processed audio data signal while supplying audio data to the MRFU", Lagoni further discloses a controller 110 (MSP) for establishing TV mode in response to an input command from the RC 125, generating the channel-related data (channel selection command signal) stored in a predetermined RAM (memory area) (Col. 3, lines 1-3) by setting the switched ON of the Television receiver (TV mode) (Col. 4, lines 25-28), Controller 110 supplies the display control data via control line 141 to the OSD processor 140 (Col. 3, lines 61-

65+) according to a Priority List Caller ID (preset incoming call alarm mode) when receiving an incoming signal from the telephone network interface 126 (MRFU) (Col. 4, lines 18-32), and answering the call (processing audio data outputted from the MRFU to output the processed audio data signal while supplying audio data to the MRFU).

Regarding claim 2, in view of the discussion in claim 1, neither Kikinis nor Lagoni clearly disclose a power switch disposed between the TV module and a power supply unit, the power switch being switched under the control of the MSP (Mobile Station Processor) to turn ON/OFF the TV module.

Tsukamoto further discloses a power switch (switch 6 'TV OFF mode', Fig. 1) disposed between the TV module and the AC power supply (not show), the power switch being switched under the control of the CPU 23 (MSP) to turn ON/OFF the display 3 (Fig. 9, steps B1, B2, B3, **B4** for TV OFF mode, B7 and **B8** for ON; Col. 9, lines 59-Col. 10, lines 3 and Col. 12, lines 54-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supply a power switch, as taught by Tsukamoto, so the Kikinis' s TV-Phone is able to display message of the incoming call while the system is under power saving mode, i.e., standby/sleep mode of powering off the display and the TV mode is OFF but not the main unit.

Regarding claim 3, in view of the discussion in claims 1 and 2, neither Kikinis nor Lagoni clearly disclose the a Radio Frequency Switch (RFSW) allowing an antenna to be connected to both the TV module and the Mobile Station RF unit (MRFU) in response to establishment of the TV mode of the Mobile Station processor (MSP) and allowing the antenna to be connected to only the MRFU in response to the establishment of the phone mode of the MSP.

Tsukamoto discloses an antenna 2 receives a TV broadcast Radio wave and a radio wave generated from a radio transmission station of a telephone service (Fig. 1; Col. 3, lines 12-39; Fig. 9 shows an algorithm of how the switch 6 function, i.e., switch 6 on VHF/UHF position, works with CPU 23) in response to the establishment of the TV mode of the CPU 23 (MSP), and allowing the antenna 2 to be connected to only the Pager mode (MRFU) in response to the establishment of the Pager mode only (switch 6 on OFF position) of the CPU 23 (MSP). Thus, Tsukamoto' switch 6 is a RFSW.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis' TV-phone with an RF switch/RFSW connects an antenna to the TV module and the Mobile Station RF unit (MRFU), as taught by Tsukamoto, so that the TV-phone receives both signals simultaneously, TV and phone, and allows user to view TV while the phone receiver works in the background to alert the viewer of an incoming call (Col. 13, lines 7-10).

Regarding claim 6, Lagoni further discloses displaying an incoming call character message at a specific region of a TV image-viewing screen (Fig. 4).

2. Claims 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis (US 6243596) in view of Tsukamoto et al. (US 5005013) and further in view of Lagoni et al. (US 6141058) and further in view of Hoffman et al. (US 4427847).

Regarding claim 4, Lagoni further discloses wherein the TV mode allowing for viewing of a TV image (if TV receiver is switched ON, i.e., active and able to display a picture; Col. 4, lines 27-28), an incoming call alarm mode of the TV phone upon reception of an incoming call (displays Caller ID; Col. 4, lines 23-31).

Lagoni does not clearly disclose “interrupting a power supply voltage supplied to the TV module and switching from TV mode to the phone mode”.

Hoffman discloses upon receiving an alarm signal regarding an incoming call during TV mode, the user activates the Phone mode 32 on the RC 15A for switching from TV mode to Phone mode, thereby interrupting a power supply voltage supplied to the TV module (not powering OFF TV set) by switching TV audio function to Phone audio function so the conversation could perform through the TV set (Col. 7, lines 59-Col. 8, lines 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis in view of Tsukamoto and Lagoni to switch TV mode to TP mode, as taught by Hoffman, so to provide to user an alternative to pick-up the phone and perform a phone conversation through the TV device while the TV program is still on.

Regarding claim 5, Lagoni further discloses wherein the TV mode allowing for viewing of a TV image (if TV receiver is switched ON, i.e., active and able to display

a picture; Col. 4, lines 27-28), an incoming call alarm mode of the TV phone upon reception of an incoming call (displays Caller ID; Col. 4, lines 23-31).

Lagoni does not clearly disclose upon reception of an incoming call comprises switching off and on, at a predetermined interval, only the audio signal outputted from the TV module.

Hoffman discloses upon reception of an incoming call comprises switching off and on, at a predetermined interval, only the audio signal outputted from the TV module (audible alarm signal of telephone ring; Col. 5, lines 10-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis in view of Tsukamoto and Lagoni that upon reception of an incoming call comprises switching off and on of an audible sound outputted from the TV module, as taught by Hoffman, so to alert the viewer of an incoming call with an audible sound (Col. 5, lines 22-26).

Regarding claim 7, Kikinis, Tsukamoto and Lagoni do not disclose wherein the MSP selectively controls an audio outputting switch.

Hoffman discloses the audio outputting switch (Fig. 1, elements 62, 72) is controlled by the control circuit 64 (MSP) upon reception of an incoming call to perform two-way conversation (Col. 5, lines 38-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kikinis in view of Tsukamoto and Lagoni to include a controller (MSP) to control an audio outputting switch, as taught by Hoffman, so to allow the user to activate the TV-phone receiver to perform a two-way telephone conversation mode

while the TV mode is ON (Col. 1, lines 55-64) by switching TV audio function to Phone audio function so the conversation could perform while in TV mode (Col. 7, lines 59-Col. 8, lines 5).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6, 8-9 and 11 of U.S. Patent No. 6529742. Although the conflicting claims are not identical, they are not patentably distinct from each other because

The Apparatus of Claim 1 corresponds to the method of Patent claim 1 of U.S. Patent No. 6529742 with the additional limitation "a TV module for receiving and demodulating a desired TV channel signal among RF electromagnetic signals received in response to an input of tuning signal, when the TV module operates by supply of a power supply voltage, to generate a composite video signal, a composite synchronizing

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signal and a composite audio signal"; " a TV control section for supplying the tuning signal corresponding to a channel selection command signal to the TV module, synchronizing On Screen Display (OSD) data corresponding to display control data and display data with the composite synchronizing signal to output the synchronized signal as a video signal" and "a display unit for synchronizing the composite video signal from the TV module and the video signal from the TV control section with the composite synchronizing signal and displaying the synchronized composite video signal and the video signal on an image viewing screen."

It would have been obvious to modify Patent claim1 to include this feature so to take the advantage of the well-known design of the LCD video circuitry driver to drive the LCD to display the received video signal.

Claims 2 and 4 correspond to method of Patent claim 9.

Claim 3 corresponds to method of Patent claim 11.

Claim 5 corresponds to method of Patent claim 8.

Claim 6 corresponds to method of Patent claim 6.

Claim 7 corresponds to method of Patent claim 11.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Metroka et al. (US 5117449) shows a dual receiver apparatus for integrated paging and radiotelephone functions.

Skerlos et al. (US 4456925) shows TV/telephone system with automatic dialing.
Stacy (US 4377729) shows apparatus for eliminating picture bounce in television/telephone system.

Contact Fax Information

Any response to this action should be mailed to:

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For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is 703-308-7372. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

HT:ht
June 29, 2003